

STATE OF CALIFORNIA

The Resources Agency

Department of Water Resources

BULLETIN No. 120-73

WATER CONDITIONS IN CALIFORNIA

REPORT No. 3



APRIL 1, 1973

NORMAN B. LIVERMORE, JR.
Secretary for Resources
The Resources Agency

RONALD REAGAN
Governor
State of California

WILLIAM R. GIANELLI
Director
Department of Water Resources

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES

RONALD REAGAN, Governor
NORMAN B. LIVERMORE, Secretary for Resources
WILLIAM R. GIANELLI, Director, Department of Water Resources
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DIVISION OF RESOURCES DEVELOPMENT

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WATER CONDITIONS INDEXES

BULLETIN 120, "WATER CONDITIONS IN CALIFORNIA", IS RELEASED ON THE 10TH OF FEBRUARY, MARCH, APRIL, AND MAY OF EACH YEAR. A FALL EDITION SUMMARIZING WATER CONDITIONS IN CALIFORNIA AT THE END OF THE WATER YEAR IS PUBLISHED IN OCTOBER.

THE PRINCIPAL INDEXES OF WATER CONDITIONS IN CALIFORNIA ARE LISTED BELOW WITH PERTINENT COMMENTS REGARDING THEIR PRESENTATION IN THIS REPORT.

SNOWPACK - APRIL 1 SNOW DATA ARE MAJOR INDEXES OF SPRING AND SUMMER RUNOFF FROM SIERRA WATERSHEDS AND HISTORICALLY REFLECT THE MAGNITUDE OF THE SNOWPACK AT NEAR MAXIMUM SEASONAL ACCUMULATION. AVERAGES ARE BASED ON THE PERIOD, 1931-1970 (40 YEARS).

PRECIPITATION - AVERAGES ARE BASED ON THE PERIOD, 1931-1970 (40 YEARS).

RESERVOIR STORAGE - AVERAGES ARE BASED ON THE PERIOD, 1963-1972 (10 YEARS).

RUNOFF - UNLESS OTHERWISE NOTED, STREAMFLOW DATA USED AS INDEXES OF BASIN OR AREA RUNOFF HAVE BEEN CORRECTED FOR MAJOR UPSTREAM IMPAIRMENTS. FORECASTS OF RUNOFF ASSUME NORMAL PRECIPITATION TO FOLLOW. RUNOFF PROBABILITY RANGES ARE STATISTICALLY DERIVED FROM HISTORICAL DATA; 80 PERCENT PROBABILITY MEANS THAT ACTUAL RUNOFF WILL FALL WITHIN THE STATED LIMITS EIGHT TIMES OUT OF TEN. AVERAGES ARE BASED ON THE PERIOD, 1921-1970 (50 YEARS).

AGENCIES COOPERATING IN THE CALIFORNIA SNOW SURVEYS PROGRAM

PUBLIC AGENCIES

BUENA VISTA WATER STORAGE DISTRICT
CENTRAL CALIFORNIA IRRIGATION DISTRICT
EAST BAY MUNICIPAL UTILITY DISTRICT
FRIANT WATER USERS ASSOCIATION
KAWeah DELTA WATER CONSERVATION DISTRICT
KAWeah RIVER ASSOCIATION
KINGS RIVER WATER ASSOCIATION
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
LOWER TULE RIVER IRRIGATION DISTRICT
MERCED IRRIGATION DISTRICT
MODESTO IRRIGATION DISTRICT
NEVADA IRRIGATION DISTRICT
OAKDALE IRRIGATION DISTRICT
OMOCHUMNE-HARTNELL WATER DISTRICT
OROVILLE-WYANDOTTE IRRIGATION DISTRICT
PLACER COUNTY WATER AGENCY
PORTERVILLE IRRIGATION DISTRICT
SACRAMENTO MUNICIPAL UTILITY DISTRICT
SAUGELITO IRRIGATION DISTRICT
SOUTH SAN JOAQUIN IRRIGATION DISTRICT
ST. JOHNS RIVER ASSOCIATION
TULE RIVER ASSOCIATION
TURLOCK IRRIGATION DISTRICT

PUBLIC AGENCIES (CONTINUED)

VANDALIA IRRIGATION DISTRICT
YUBA COUNTY WATER AGENCY

PRIVATE ORGANIZATIONS

ATMOSPHERICS INCORPORATED
ATMOSPHERIC WATER RESOURCES RESEARCH
J. G. BOSWELL COMPANY
KERN COUNTY LAND COMPANY
LIBERTY FARMS COMPANY
MT. REBA INC.
UNION CARBIDE CORPORATION

PUBLIC UTILITIES

PACIFIC GAS AND ELECTRIC COMPANY
SIERRA PACIFIC POWER COMPANY
SOUTHERN CALIFORNIA EDISON COMPANY

MUNICIPALITIES

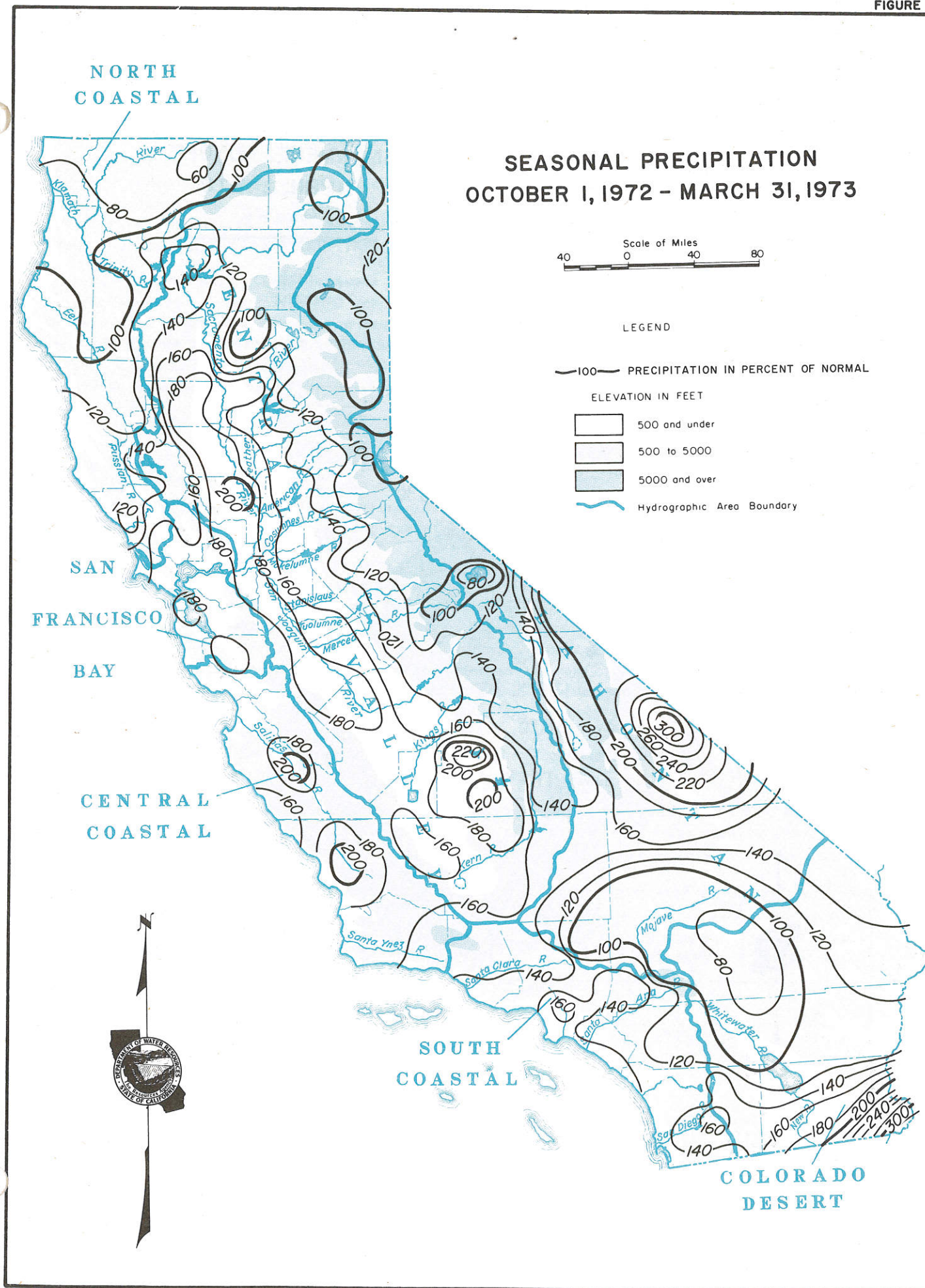
CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
CITY OF PORTERVILLE
CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION

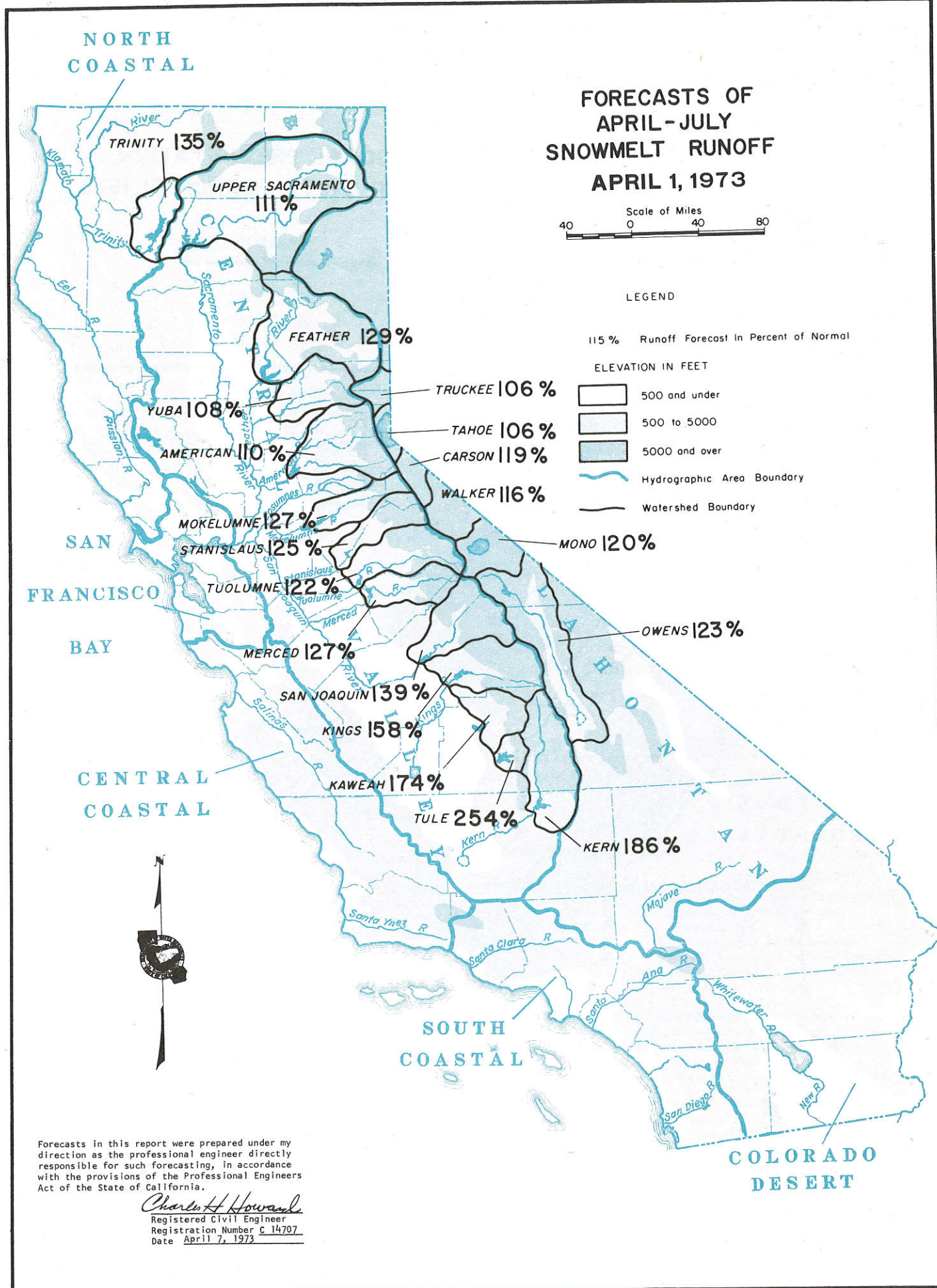
STATE AND FEDERAL AGENCIES

CALIFORNIA DEPARTMENT OF WATER RESOURCES
CALIFORNIA DEPARTMENT OF PARKS
AND RECREATION
U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE (14 NATIONAL FORESTS)
PACIFIC SOUTHWEST FOREST AND RANGE
EXPERIMENT STATION
SOIL CONSERVATION SERVICE
U. S. DEPARTMENT OF COMMERCE
NATIONAL WEATHER SERVICE
U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
GEOLOGICAL SURVEY, WATER RESOURCES
DIVISION
NATIONAL PARK SERVICE (3 NATIONAL
PARKS)
U. S. DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

OTHER COOPERATIVE PROGRAMS

NEVADA COOPERATIVE SNOW SURVEYS
OREGON COOPERATIVE SNOW SURVEYS





SUMMARY OF WATER CONDITIONS

APRIL 1, 1973

APRIL SNOW SURVEYS SHOW THAT 1973 WILL BE A YEAR WITH MORE THAN ADEQUATE WATER SUPPLIES IN NEARLY ALL AREAS OF CALIFORNIA. THE CONTINUATION THROUGH MARCH OF COOL, WET WEATHER HAS BOOSTED THE ALREADY ABOVE AVERAGE SNOW WATER CONTENT TO EVEN GREATER AMOUNTS IN MOST WATERSHEDS. THE CONTRIBUTING WATERSHEDS FOR THE LOWER SAN JOAQUIN VALLEY STREAMS AGAIN RECEIVED THE HEAVIER AMOUNTS OF PRECIPITATION IN THE FORM OF SNOW AS COMPARED TO THE WATERSHEDS IN THE NORTH. THIS HAS RESULTED IN INCREASES IN THE FORECASTS OF RUNOFF OVER THOSE PRESENTED ONE MONTH AGO. CONSIDERING THAT THE LAST THREE YEARS HAVE BEEN ON THE DRY SIDE IN THE SOUTHERN BASINS, THE 1973 STORM PATTERNS HAVE CREATED VERY FAVORABLE WATER SUPPLY CONDITIONS FOR THE SAN JOAQUIN VALLEY THIS SEASON.

SNOW WATER CONTENT RANGES FROM AVERAGE IN THE SHASTA RIVER BASIN OF THE NORTH COASTAL AREA TO AN IMPRESSIVE 250 PERCENT OF AVERAGE IN THE MID-ELEVATIONS OF THE KAWEAH RIVER'S SNOW ZONE. THE SNOW WATER CONTENT AT MID-ELEVATIONS OF THE KERN, KAWEAH, KINGS, AND TULE BASINS IS GREATER IN PERCENTAGE OF NORMAL THAN AT THE HIGHER ELEVATIONS. SNOW DENSITIES THROUGHOUT THE SIERRA RANGE FROM 35 TO 40 PERCENT, WHICH IS SLIGHTLY BELOW AVERAGE FOR THIS TIME OF THE YEAR.

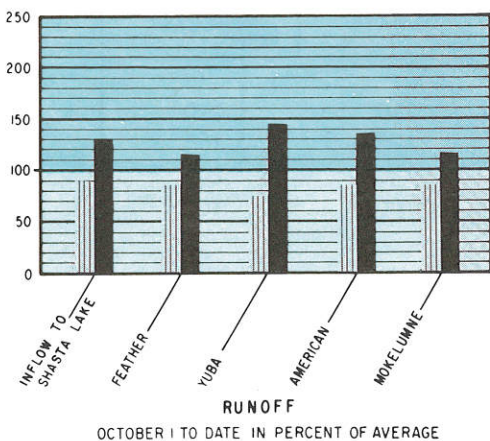
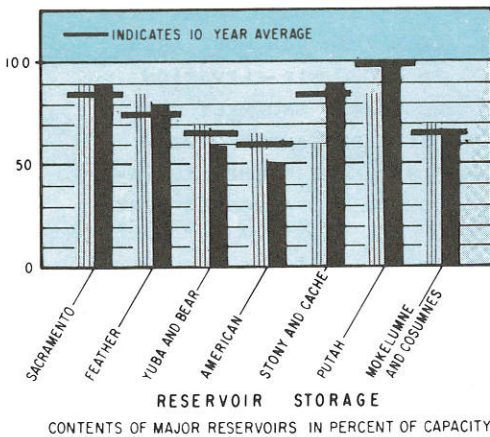
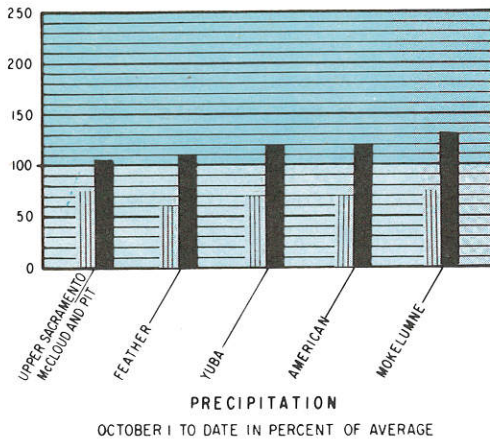
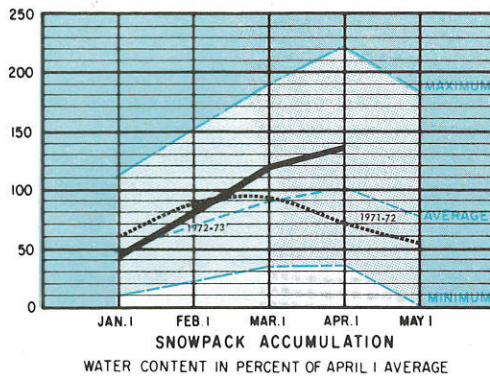
PRECIPITATION DURING MARCH FOLLOWED AN ERRATIC PATTERN OVER CALIFORNIA. STORM TRACKS FAVORED THE COASTAL AND CENTRAL LATITUDES OF THE STATE WITH HEAVY AMOUNTS RECORDED IN THE LOWER SAN JOAQUIN VALLEY AND SOUTH COASTAL AREAS. BELOW NORMAL PRECIPITATION WAS EXPERIENCED OVER THE LAHONTAN AREA AND THE NORTHERN SIERRA. THIS YEAR DID NOT PRODUCE ANY MAJOR STORMS, YET ALL REPORTING STATIONS HAVE RECORDED MUCH ABOVE AVERAGE PRECIPITATION AMOUNTS FOR THIS POINT IN THE SEASON, EXCEPT FOR THE NORTH COASTAL AREA.

RUNOFF IN MARCH WAS SLIGHTLY ABOVE NORMAL ON A STATEWIDE BASIS BUT VARIED WIDELY IN AMOUNT DUE TO UNEVEN PRECIPITATION PATTERNS. THE VARIED AMOUNT OF RUNOFF IS ILLUSTRATED BY COMPARING THE LAHONTAN AREA WHICH PRODUCED ONLY 75 PERCENT OF AVERAGE MARCH RUNOFF, TO THE CENTRAL COASTAL AREA WHICH APPROACHED 200 PERCENT OF AVERAGE RUNOFF FOR THE MONTH. THE PATTERN OF ABOVE NORMAL RUNOFF, THOUGH, HAS PREVAILED THROUGHOUT THE WATER YEAR FOR MOST AREAS OF THE STATE. THE UNUSUALLY HEAVY DEPOSITION OF SNOW IN THE 6,000 TO 8,000 MID-ELEVATION BAND MAY MELT AWAY RAPIDLY IF EXTENDED PERIODS OF WARM WEATHER OCCUR. RAPID SNOWMELT COULD PRODUCE PEAK RUNOFFS AND FLOODING CONDITIONS ALONG THE SMALLER EAST SIDE STREAMS OF THE SOUTHERN SAN JOAQUIN VALLEY. WITH COOLER WEATHER PREDOMINATING IN MARCH, THE HIGHER ELEVATION WATERSHEDS CONTINUED TO HOLD MUCH OF THE ANTICIPATED RUNOFF AS SNOW. AS A RESULT VERY LITTLE SNOWMELT HAS OCCURRED.

RESERVOIR STORAGE IS ABOVE AVERAGE IN THE SACRAMENTO VALLEY AND STILL ABOUT 10 PERCENT BELOW AVERAGE IN THE SAN JOAQUIN VALLEY AS OF APRIL 1. ADEQUATE STORAGE SPACE TO CONTROL EXPECTED SNOWMELT RUNOFF IS AVAILABLE IN ALL RESERVOIRS AND A GENERAL IMPROVEMENT IN STORAGE IS EXPECTED AS WARM WEATHER BEGINS.

HYDROGRAPHIC AREA	PRECIPITATION OCTOBER 1 TO DATE	SNOW WATER CONTENT	RESERVOIR STORAGE	RUNOFF	
				OCTOBER 1 TO DATE	WATER YEAR FORECAST
North Coastal	100	130	95	110	110
San Francisco Bay	170	--	120	175	165
Central Coastal	170	--	120	230	205
South Coastal	135	--	135	100	100
Central Valley					
Sacramento Basin	135	135	100	135	130
San Joaquin and Tulare Lake Basins	150	150	90	115	135
Lahontan	130	140	75	100	105
Colorado Desert	120	--	--	--	--
ENTIRE STATE	130	140	100	125	125

SACRAMENTO RIVER BASIN



APRIL 1, 1972

APRIL 1, 1973

APRIL 1, 1973

SNOWPACK - MEASUREMENTS OF SNOWPACK WERE OBTAINED AT 104 SNOW COURSES AND 18 AERIAL SNOW DEPTH MARKERS ON OR ABOUT APRIL 1. ALSO, READINGS OF WATER CONTENT WERE OBTAINED FROM 16 SNOW SENSORS. THESE MEASUREMENTS INDICATE THAT SNOWPACK WATER CONTENT WAS 135 PERCENT OF AVERAGE AS COMPARED TO 70 PERCENT ONE YEAR AGO. THE WATER CONTENT RANGES FROM A HIGH OF 155 PERCENT IN THE SACRAMENTO RIVER AND FEATHER RIVER BASINS TO A LOW OF 45 PERCENT IN THE PIT RIVER BASIN. NINETY-SIX SNOW COURSES IN THIS AREA HAVE WATER CONTENTS THAT EXCEED THE APRIL AVERAGE. DENSITIES RANGE FROM 35-45 PERCENT.

PRECIPITATION - FROM OCTOBER 1, 1972 THROUGH MARCH 31, 1973 PRECIPITATION OVER THE SACRAMENTO VALLEY AVERAGED 135 PERCENT OF NORMAL. HALFWAY THROUGH THE WATER YEAR, ONLY COLD DECEMBER YIELDED SUBNORMAL PRECIPITATION OVER THE PAST SIX MONTHS. ALL MOUNTAIN SUBDRAINAGES, AND ESPECIALLY THE VALLEY FLOOR, ARE WELL ABOVE NORMAL FOR THIS DATE. SEASONAL VALUES ARE GENERALLY TWICE THE AMOUNTS FOR THE CORRESPONDING PERIOD ONE YEAR AGO. EXTREMELY HIGH ACCUMULATION TOTALS WERE REPORTED FROM A STRIP OF STATIONS ALONG THE VALLEY FLOOR, ORLAND SOUTH TO DAVIS. WOODLAND 1WNW, IN YOLO COUNTY, RECEIVED 29.28 INCHES OR 200 PERCENT OF NORMAL, EXCEEDING THEIR PREVIOUS 1940-41 OCTOBER-MARCH RECORD BY 1.32 INCHES. OTHER SEASONAL TOTALS VARIED FROM 84.78 INCHES OR 151 PERCENT AT VOLLMERS IN THE UPPER SACRAMENTO RIVER DRAINAGE, TO 6.23 INCHES OR 73 PERCENT AT ALTURAS IN THE PIT RIVER DRAINAGE.

DURING MARCH, PRECIPITATION AVERAGED NORMAL OVER THE AREA. EXTREMES VARIED FROM A HIGH OF 9.42 INCHES (116 PERCENT) AT DE SABLE TO A LOW OF 0.57 INCH (41 PERCENT) AT ALTURAS. LIGHT TO MODERATE AMOUNTS OCCURRED EVERY WEEK THROUGHOUT THE MONTH.

RESERVOIR STORAGE - APRIL 1 STORAGE ON THIRTY-FOUR MAJOR RESERVOIRS ON THE SACRAMENTO RIVER AND ITS TRIBUTARIES CONTAINED 12,676,000 ACRE-Feet. THIS REPRESENTS 80 PERCENT OF THEIR TOTAL CAPACITY AND 102 PERCENT OF AVERAGE CONTENT FOR THIS DATE. NEARLY HALF OF THE STORED WATER IS CONTAINED IN THE OROVILLE AND SHASTA RESERVOIRS WHICH ARE STORING 5,115,000 ACRE-Feet OF COMBINED STORAGE ON APRIL 1.

RUNOFF - TOTAL RUNOFF IN MAJOR SACRAMENTO VALLEY STREAMS AMOUNTED TO 13,684,000 ACRE-Feet FROM OCTOBER 1 TO DATE, OR 136 PERCENT OF AVERAGE FOR THE PERIOD. DURING MARCH ALONE THE RUNOFF AMOUNTED TO 2,875,000 ACRE-Feet OR 115 PERCENT OF AVERAGE FOR THE MONTH. ALL STREAMS WERE RUNNING ABOVE AVERAGE DURING MARCH EXCEPT FOR THE MOKELUMNE RIVER. VOLUMES RANGED FROM 96 PERCENT OF AVERAGE ON THE MOKELUMNE RIVER TO 137 PERCENT ON THE COSUMNES RIVER.

SAN JOAQUIN RIVER AND TULARE LAKE BASINS

SNOWPACK - MEASUREMENTS OF SNOWPACK WERE OBTAINED AT 111 SNOW COURSES AND 34 AERIAL SNOW DEPTH MARKERS ON OR ABOUT APRIL 1. ALSO, READINGS OF WATER CONTENT WERE OBTAINED FROM 10 SNOW SENSORS. THESE MEASUREMENTS INDICATE THAT SNOWPACK WATER CONTENT IS 150 PERCENT OF AVERAGE AS COMPARED TO 50 PERCENT ONE YEAR AGO. SNOWPACK WATER CONTENT RANGES FROM A HIGH OF 235 PERCENT OF AVERAGE IN THE TULE RIVER BASIN TO A LOW OF 125 PERCENT IN THE TUOLUMNE RIVER BASIN.

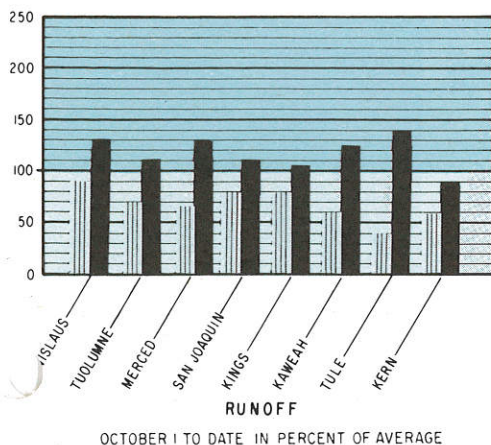
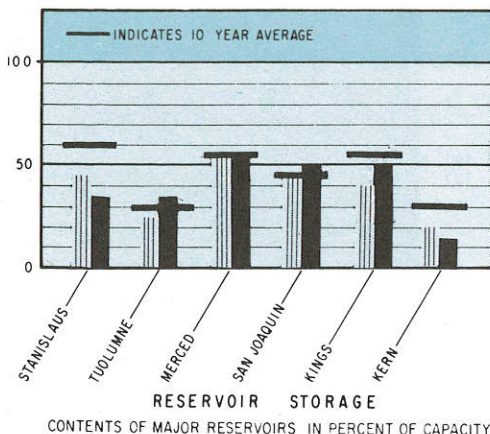
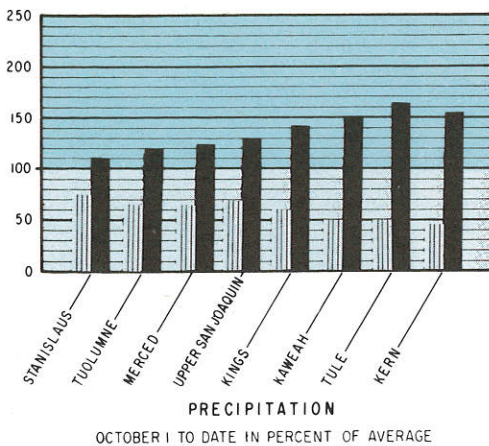
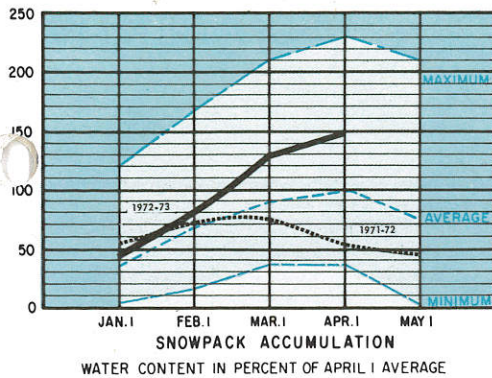
NORMALLY DURING THE MONTH OF MARCH A 10 PERCENT INCREASE IN THE SNOWPACK IS EXPECTED. DURING MARCH OF THIS YEAR THE KAWEAH, TULE, AND KERN RIVER BASINS EXPERIENCED A 35, 75, AND 35 PERCENT INCREASE IN SNOWPACK WATER CONTENT, RESPECTIVELY. TWO SNOW COURSES IN THIS AREA HAVE WATER CONTENTS THAT EXCEED THE MAXIMUM WATER CONTENT EVER RECORDED. ALL SNOW COURSES IN THIS AREA HAVE WATER CONTENTS THAT EXCEED THE APRIL 1 AVERAGE. SNOW SURVEYORS REPORT A CONTINUOUS SERIES OF STORMS DURING THE MONTH WITH LITTLE OR NO MELTING OCCURRING BETWEEN STORMS. DENSITIES RANGE FROM 35-40 PERCENT, A LITTLE BELOW NORMAL.

PRECIPITATION - FROM OCTOBER 1, 1972 THROUGH MARCH 31, 1973 PRECIPITATION WAS 150 PERCENT OF NORMAL OVER THE SAN JOAQUIN VALLEY. SEASONAL PRECIPITATION VALUES ARE GENERALLY UP TO THREE TIMES MORE THAN THEY WERE FOR THE CORRESPONDING PERIOD ONE YEAR AGO. FIVE WET MONTHS BROUGHT A RECORD SEASONAL TOTAL OF 26.50 INCHES OR 230 PERCENT OF NORMAL TO LEMON COVE. THIS WAS 2.17 INCHES OVER THE PREVIOUS RECORD ESTABLISHED IN 1968-69 FOR THE SAME PERIOD. VISALIA, WITH 18.60 INCHES (222 PERCENT), AND PORTER VILLE, AT 19.12 INCHES (208 PERCENT), ALMOST EQUALLED THEIR 1968-69 RECORD, EACH SHORT BY 0.01 INCH AND 0.26 INCH, RESPECTIVELY. GRANT GROVE, IN THE KINGS RIVER DRAINAGE, RECEIVED THE GREATEST OCTOBER-MARCH TOTAL IN THE AREA OF 49.66 INCHES AS CONTRASTED TO THE LOWEST TOTAL OF 7.94 INCHES AT BAKERSFIELD.

PRECIPITATION DURING MARCH AVERAGED 140 PERCENT OF NORMAL. IT VARIED FROM 9.35 INCHES (120 PERCENT) AT GRANT GROVE TO 1.33 INCHES (132 PERCENT) AT COALINGA. IT WAS ESPECIALLY WET OVER THE TULARE LAKE BASIN WHERE BAKERSFIELD, WITH 2.51 INCHES (264 PERCENT), REPORTED THEIR SECOND WETTEST MARCH OF RECORD.

RESERVOIR STORAGE - APRIL 1 STORAGE IN TWENTY-SEVEN MAJOR RESERVOIRS ON STREAMS TRIBUTARY TO THE SAN JOAQUIN VALLEY AMOUNTED TO 3,242,000 ACRE-Feet, WHICH REPRESENTS 42 PERCENT OF THEIR TOTAL CAPACITY. THIS WAS 215,000 ACRE-Feet MORE THAN ONE YEAR AGO AND ABOUT 347,000 ACRE-Feet MORE THAN IN STORAGE ONE MONTH AGO. NEW DON PEDRO RESERVOIR INCREASED ITS CONTENTS BY 300,000 ACRE-Feet SINCE ONE YEAR AGO, AND IS NOW STORING A TOTAL OF 873,000 ACRE-Feet.

RUNOFF - MARCH RUNOFF HAS BEEN ABOUT 115 PERCENT OF AVERAGE ON STREAMS TRIBUTARY TO THE SAN JOAQUIN VALLEY, VARYING FROM 96 PERCENT FOR THE KERN RIVER TO 156 PERCENT ON THE TULE RIVER. RUNOFF FOR THE WATER YEAR TO DATE HAS BEEN 115 PERCENT OF AVERAGE, WITH ONLY THE KERN RIVER PRODUCING BELOW AVERAGE AMOUNTS. CONSIDERING THE EXCELLENT SNOW COVER IN THE BASIN, THIS CONDITION SHOULD IMPROVE IN THE MONTHS AHEAD.



APRIL 1, 1972

APRIL 1, 1973

FORECASTS OF APRIL - JULY FOR CENTRAL VALLEY AS OF APRIL 1, 1968

DRAINAGE BASIN AND WATERSHED	April Through July in 1,000 Acre-Feet					
	HISTORICAL			FORECASTS		
	50-Year Average	Maximum of Record	Minimum of Record	April-July Forecast	Percent of Average	80% Prob. Range Acre-Feet
SACRAMENTO RIVER BASIN						
Upper Sacramento River						
Pit River inflow to Shasta Lake	1,012	1,796	480	1,060	105	--
McCloud River inflow to Shasta Lake	422	850	194	440	104	--
Sacramento River inflow to Shasta Lake	288	636	39	410	142	--
Total inflow to Shasta Lake	1,774	3,064	726	1,970	111	1,600 to 2,600
Sacramento River near Red Bluff	2,424	4,611	943	2,750	113	--
Feather River						
Inflow to Lake Almanor (nr Prattville)	326	675	120	450	138	--
North Fork at Pulga	1,031	2,416	254	1,340	130	--
Middle Fork near Clito	85	518	8	100	118	--
South Fork at Enterprise	106	267	19	130	123	--
Total inflow to Oroville Reservoir	1,862	4,676	396	2,400	129	2,100 to 3,100
Yuba River						
North Fork below Goodyears Bar	289	647	68	335	116	--
Combined inflow to Jackson Mdw. and Bowman Reservoirs	109	236	37	115	106	--
South Fork at Langs Crossings	233	481	74	240	103	--
Yuba River at Smartville	1,079	2,424	239	1,160	108	1,000 to 1,550
American River						
North Fork at North Fork Dam	264	716	48	310	117	--
Middle Fork near Auburn	548	1,406	117	610	111	--
Silver Creek below Camino Diversion Dam	180	383	43	200	111	--
Total inflow to Folsom Reservoir	1,314	3,074	257	1,450	110	1,300 to 1,940
<i>Sacramento River at Sacramento</i>						
Cosumnes River						
Cosumnes River at Michigan Bar	145	361	12	230	159	200 to 300
Mokelumne River						
North Fork near West Point	416	829	143	530	127	--
Total inflow to Pardee Reservoir	465	1,065	127	580	127	520 to 700
SAN JOAQUIN RIVER BASIN						
Stanislaus River						
Middle Fork at Sand Bar Flat near Avery	339	702	83	430	127	--
Total inflow to Melones Reservoir	718	1,710	167	900	125	800 to 1,130
Tuolumne River						
Cherry Creek and Eleanor Creek near Hetch Hetchy	305	560	102	380	125	--
Tuolumne River near Hetch Hetchy	599	1,392	215	720	120	--
Total inflow to Don Pedro Reservoir	1,193	2,609	385	1,450	122	1,350 to 1,700
Merced River						
Merced River at Pohono Bridge	359	888	121	460	128	--
Total inflow to Exchequer	608	1,491	175	770	127	700 to 940
San Joaquin River						
South Fork near Florence Lake	187	511	58	270	144	--
Big Creek below Huntington Lake	85	264	19	125	147	--
San Joaquin River at Mammoth Pool	971	2,218	254	1,350	139	--
Total inflow to Millerton Lake	1,193	3,355	310	1,660	139	1,480 to 1,900
<i>San Joaquin River near Yernalis</i>						
TULARE LAKE BASIN						
Kings River						
North Fork near Cliff Camp	232	478	50	375	162	--
Total inflow to Pine Flat Reservoir	1,163	3,163	280	1,840	158	1,660 to 2,060
Kaweah River						
Total inflow to Terminus Reservoir	271	814	69	470	174	435 to 525
Tule River						
Total inflow to Success Reservoir	59	222	2	150	254	140 to 170
Kern River						
Kern River near Kernville	349	1,200	75	620	178	--
Total inflow to Isabella Reservoir	419	1,649	84	780	186	680 to 900

AND WATER YEAR RUNOFF

ALLEY STREAMS

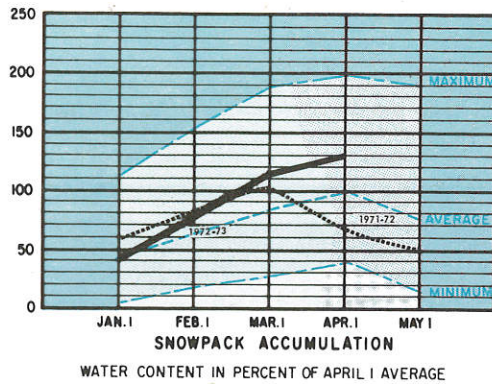
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1973

Water Year --- October Through September --- in 1,000 Acre-Feet												
HISTORICAL			*	*	*	DISTRIBUTION					FORECASTS	
50-Year Average	Maximum of Record	Minimum of Record	October Through January	February	March	April	May	June	July	August and September	Water Year Forecast	Percent of Average
2,863	4,698	1,484	--	--	--	--	--	--	--	--	3,300	115
1,222	2,353	632	--	--	--	--	--	--	--	--	1,430	117
780	1,767	171	--	--	--	--	--	--	--	--	1,060	136
5,481	9,700	2,479	2,265	1,035	900	830	570	335	235	430	6,600	120
7,950	15,121	3,294	4040	2000	400	--	--	--	--	--	10,550	133
722	1,269	396	--	--	--	--	--	--	--	--	--	--
2,265	4,400	819	--	--	--	--	--	--	--	--	--	--
203	637	41	--	--	--	--	--	--	--	--	--	--
257	562	67	--	--	--	--	--	--	--	--	--	--
4,286	9,492	1,295	1,360	570	615	910	890	430	170	225	5,170	121
526	1,056	162	--	--	--	--	--	--	--	--	--	--
166	292	60	--	--	--	--	--	--	--	--	--	--
343	565	114	--	--	--	--	--	--	--	--	--	--
2,266	4,544	603	960	360	330	410	460	230	60	50	2,860	126
550	1,234	110	--	--	--	--	--	--	--	--	--	--
1,009	2,575	283	--	--	--	--	--	--	--	--	--	--
298	537	83	--	--	--	--	--	--	--	--	--	--
2,570	5,787	543	910	400	350	520	565	290	75	40	3,150	123
												125
363	876	40	155	100	92	100	60	50	20	3	580	160
583	1,009	197	--	--	--	--	--	--	--	--	--	--
705	1,692	190	130	65	70	145	245	155	35	5	850	121
456	929	128	--	--	--	--	--	--	--	--	--	--
1,085	2,834	261	200	130	125	235	360	235	70	20	1,375	127
428	740	158	--	--	--	--	--	--	--	--	--	--
738	1,661	265	--	--	--	--	--	--	--	--	--	--
1,789	3,756	546	265	185	180	350	520	450	130	40	2,120	119
439	1,020	145	--	--	--	--	--	--	--	--	--	--
920	2,203	252	115	125	140	160	325	230	55	15	1,165	127
226	653	71	--	--	--	--	--	--	--	--	--	--
100	298	22	--	--	--	--	--	--	--	--	--	--
1,256	2,964	361	--	--	--	--	--	--	--	--	--	--
1,659	4,368	444	180	130	130	300	530	545	285	100	2,200	133
												125
266	542	58	--	--	--	--	--	--	--	--	--	--
1,568	4,243	392	160	85	115	295	625	625	295	115	2,315	148
404	1,265	102	58	37	55	95	185	140	50	20	640	158
133	499	19	40	25	42	50	55	35	10	3	260	195
514	1,800	147	--	--	--	--	--	--	--	--	--	--
629	2,207	175	70	30	40	160	290	220	110	80	1,000	159

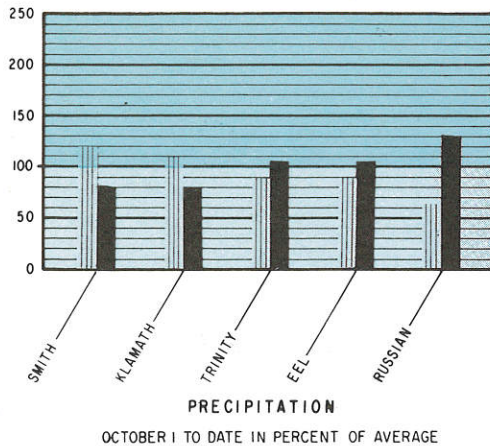
Monthly unimpaired values are proportionally distributed based on historical years of similar magnitude.
 * Unimpaired flows to date.

NORTH COASTAL AREA



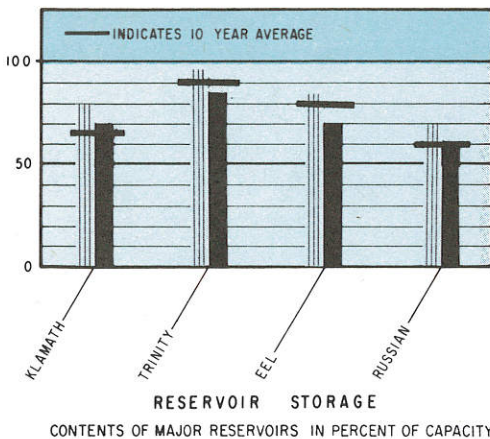
SNOWPACK - MEASUREMENTS OF SNOWPACK WERE OBTAINED AT 19 SNOW COURSES ON OR ABOUT APRIL 1. THESE MEASUREMENTS INDICATE THAT SNOWPACK WATER CONTENT IS 130 PERCENT OF AVERAGE AS COMPARED TO 65 PERCENT ONE YEAR AGO. THE WATER CONTENT RANGES FROM A HIGH OF 140 PERCENT IN THE TRINITY RIVER BASIN TO A LOW OF 100 PERCENT IN THE SHASTA RIVER BASIN. FIFTEEN SNOW COURSES IN THIS AREA REPORT WATER CONTENTS THAT EXCEED THE APRIL 1 AVERAGE. DENSITIES RANGE FROM 40-45 PERCENT.

THE OREGON COOPERATIVE SNOW SURVEYS, THROUGH THE U. S. SOIL CONSERVATION SERVICE, PORTLAND, OREGON, REPORTS THAT SNOWPACK WATER CONTENT IN THE UPPER KLAMATH RIVER BASIN ON APRIL 1 WAS 60 PERCENT OF NORMAL AS COMPARED TO 90 PERCENT ONE YEAR AGO.



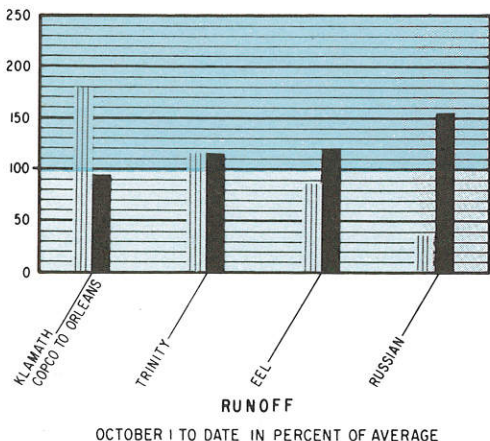
PRECIPITATION - PRECIPITATION IN THE NORTH COASTAL AREA WAS NORMAL FOR THE PERIOD OCTOBER 1 THROUGH MARCH 31. IT VARIED FROM 69.01 INCHES (100 PERCENT) AT UPPER MATTOLE, IN THE MATTOLE RIVER DRAINAGE, TO 5.24 INCHES (58 PERCENT) AT MONTAGUE, NEAR YREKA. ONLY THE SMITH AND KLAMATH DRAINAGES ARE SLIGHTLY BELOW NORMAL WITH CATCH VALUES ABOUT A THIRD LESS THAN LAST YEAR. A MARKED CHANGE, HOWEVER, OCCURRED OVER THE RUSSIAN DRAINAGE WHERE THE VALUE DOUBLED FOR THE CORRESPONDING PERIOD.

FOR THE MONTH OF MARCH, PRECIPITATION AVERAGED 95 PERCENT OF NORMAL. EXTREMES VARIED FROM 11.43 INCHES (110 PERCENT) AT GASQUET R. S., IN THE SMITH RIVER DRAINAGE, TO 0.75 INCH (49 PERCENT) AT YREKA.



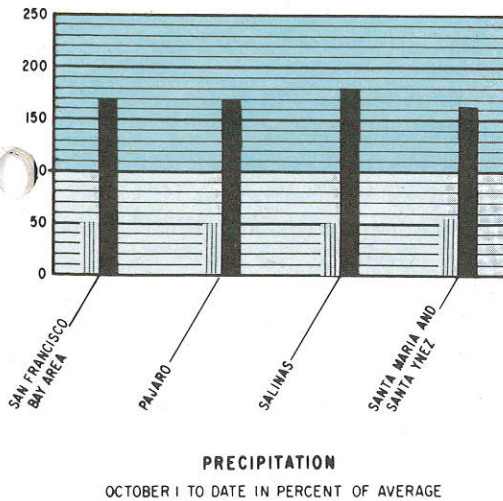
RESERVOIR STORAGE - THE FOUR MAJOR RESERVOIRS IN THIS AREA ARE STORING 2,311,000 ACRE-FEET ON APRIL 1. THIS AMOUNTS TO 85 PERCENT OF CAPACITY AND 96 PERCENT OF AVERAGE STORAGE FOR THIS DATE. THE THREE INTERSTATE RESERVOIRS ON THE KLAMATH SYSTEM, WHICH CONTRIBUTE WATER TO THIS AREA, ARE STORING 841,000 ACRE-FEET OR 111 PERCENT OF THE 10-YEAR AVERAGE FOR APRIL 1.

RUNOFF - MARCH RUNOFF RANGED FROM A LOW OF 65 PERCENT OF AVERAGE IN THE KLAMATH AND SALMON RIVERS TO 125 PERCENT FOR THE RUSSIAN RIVER. TOTAL FLOW IN ALL RIVERS WAS 1,628,000 ACRE-FEET DURING THE MONTH, OR 90 PERCENT OF AVERAGE. WATER YEAR RUNOFF HAS BEEN 10,251,000 ACRE-FEET OR 112 PERCENT OF AVERAGE FOR THE SIX-MONTH PERIOD.

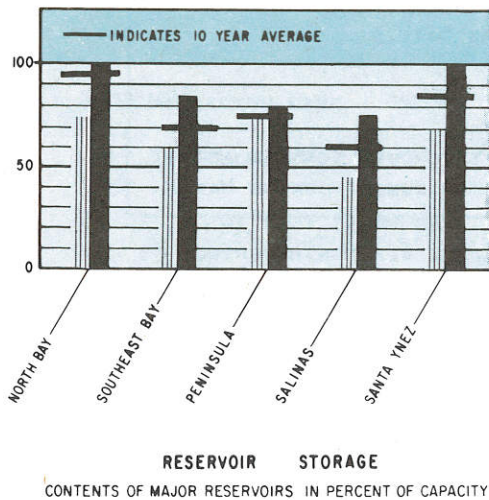


FORECASTS - CONDITIONS AT THIS TIME INDICATE THAT RUNOFF OF THE NORTH COASTAL AREA DURING THE 1972-73 WATER YEAR WILL BE ABOUT 110 PERCENT OF AVERAGE. THE APRIL-JULY RUNOFF OF THE TRINITY RIVER AT LEWISTON IS FORECASTED TO BE ABOUT 830,000 ACRE-FEET, WHICH IS 135 PERCENT OF THE AVERAGE RUNOFF AT THIS STATION. THE U. S. SOIL CONSERVATION SERVICE, THE OREGON EXPERIMENT STATION, AND THEIR COOPERATORS, FORECAST THAT THE APRIL-SEPTEMBER RUNOFF INTO UPPER KLAMATH LAKE WILL BE ABOUT 400,000 ACRE-FEET OR 64 PERCENT OF THE 1953-67 AVERAGE.

SAN FRANCISCO BAY AND CENTRAL COASTAL AREAS

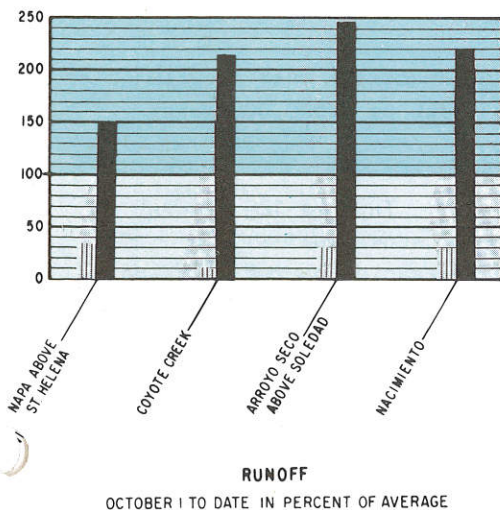


PRECIPITATION - IN THE SAN FRANCISCO BAY AND CENTRAL COASTAL AREAS, PRECIPITATION AVERAGED 170 PERCENT OF NORMAL FOR THE PERIOD OCTOBER 1 THROUGH MARCH 31. IT VARIED FROM 211 PERCENT OF NORMAL (19.27 INCHES) AT KING CITY, IN THE SALINAS RIVER DRAINAGE, TO 147 PERCENT (50.18 INCHES) AT ANGIN PACIFIC UNION COLLEGE, IN THE NAPA RIVER DRAINAGE. SUBDRAINAGE PRECIPITATION AMOUNTS ARE SPECTACULARLY HIGH, OVER THREE TIMES THE VALUES FOR THE CORRESPONDING PERIOD LAST YEAR. SEASONAL TOTALS VARIED FROM 70.71 INCHES (162 PERCENT) AT LAGUNITAS LAKE TO 18.96 INCHES (168 PERCENT) AT SAN ARDO, IN THE SALINAS RIVER DRAINAGE. MARCH PRECIPITATION AVERAGED 125 PERCENT OF NORMAL. IT VARIED FROM 6.40 INCHES (115 PERCENT) AT BIG SUR STATE PARK TO 1.74 INCHES OR 111 PERCENT AT KING CITY.



RESERVOIR STORAGE - THE 17 MAJOR RESERVOIRS IN THE SAN FRANCISCO BAY AREA ARE STORING 541,000 ACRE-Feet ON APRIL 1. THIS IS 119 PERCENT OF AVERAGE AND 139,000 ACRE-Feet MORE THAN WAS IN STORAGE ONE YEAR AGO. SEVEN OF THESE RESERVOIRS DRAW WATER FROM SIERRA WATERSHEDS. THE AREAS OF IMPORT, FORECASTED TO EXPERIENCE ABOVE NORMAL RUNOFF CONDITIONS THIS SEASON, WILL PROVIDE ADEQUATE WATER SUPPLIES FOR ALL USERS.

IN THE CENTRAL COASTAL AREA, STORAGE IN SIX MAJOR RESERVOIRS IS 791,000 ACRE-Feet OR 119 PERCENT OF AVERAGE FOR APRIL 1. THIS IS 176,000 ACRE-Feet MORE THAN WAS IN STORAGE ONE YEAR AGO.



RUNOFF - MARCH RUNOFF IN SAN FRANCISCO BAY AREA STREAMS WAS 26,000 ACRE-Feet OR 140 PERCENT OF AVERAGE FOR THE MONTH. FOR THE SIX-MONTH WATER YEAR TO DATE, RUNOFF HAS BEEN 174,000 ACRE-Feet OR 175 PERCENT OF AVERAGE. THE CENTRAL COASTAL STREAMS CONTINUE TO PRODUCE HEAVY RUNOFF AS STORMS FAVORING THIS AREA KEPT MOVING THROUGH DURING MARCH. RUNOFF WAS 115,000 ACRE-Feet OR 195 PERCENT OF AVERAGE FOR THE MONTH. WATER YEAR RUNOFF REFLECTS THE PERSISTENT MID-STATE STORM PATTERNS. SINCE OCTOBER 1, STREAMS IN THIS AREA HAVE PRODUCED 567,000 ACRE-Feet OF WATER, AN IMPRESSIVE 230 PERCENT OF AVERAGE FOR THE PERIOD.

SOUTH COASTAL AND COLORADO DESERT AREAS

PRECIPITATION - IN THE SOUTH COASTAL AREA, PRECIPITATION AVERAGED 135 PERCENT OF NORMAL FOR THE PERIOD OCTOBER 1, 1972 THROUGH MARCH 31, 1973. SEASONAL VALUES OF SUBDRAINAGES ARE UP TO THREE TIMES THOSE EXPERIENCED DURING THE SAME PERIOD LAST YEAR. EXTREMES VARIED FROM 45.04 INCHES (147 PERCENT) AT LYTLE CREEK R. S., IN THE SANTA ANA RIVER DRAINAGE, TO 11.77 INCHES (136 PERCENT) AT SAN DIEGO. MARCH PRECIPITATION AVERAGED 155 PERCENT OF NORMAL. IT VARIED FROM 14.31 INCHES (239 PERCENT) AT CUYAMACA, IN SAN DIEGO COUNTY, TO 2.20 INCHES (100 PERCENT) AT VENTURA.

PRECIPITATION IN THE COLORADO DESERT AREA DURING THE OCTOBER THROUGH MARCH PERIOD AVERAGED 120 PERCENT OF NORMAL. EXTREMES VARIED FROM 174 PERCENT OF NORMAL AT IMPERIAL TO 67 PERCENT AT TWENTYNINE PALMS WHERE ITS SIX-MONTH TOTAL OF 1.54 INCHES IS THE LOWEST, STATEWIDE. MARCH PRECIPITATION AVERAGED 240 PERCENT OVER THE AREA. IT VARIED FROM 1.80 INCHES (500 PERCENT) AT NEEDLES TO 0.10 INCH (43 PERCENT) AT THERMAL.

RESERVOIR STORAGE - APRIL 1 STORAGE FROM TWENTY-SIX MAJOR RESERVOIRS IN THE SOUTH COASTAL AREA SHOWS A COMBINED STORAGE OF 788,800 ACRE-Feet. THIS IS 53 PERCENT OF THE TOTAL CAPACITY FOR THIS DATE. TOTAL STORAGE SHOWS AN INCREASE OF 136,000 ACRE-Feet FROM THAT HELD ONE YEAR AGO. SOURCES OF IMPORTED WATER FOR THIS AREA, ON THE COLORADO RIVER, ARE STORING 64 PERCENT OF THEIR CAPACITY FOR THIS DATE.

RUNOFF - BASED ON DATA RECEIVED FROM KEY STREAMS IN THE SOUTH COASTAL AREA, MARCH RUNOFF WAS ABOUT 145 PERCENT OF AVERAGE. THIS IMPROVEMENT IN RUNOFF DURING MARCH RESULTED FROM THE HEAVY PRECIPITATION RECEIVED DURING THE MONTH. THE WATER YEAR TO DATE HAS NOW PRODUCED ABOUT 95 PERCENT OF AVERAGE AMOUNTS DURING THE SIX-MONTH PERIOD.

MAJOR WATER DISTRIBUTION PROJECTS

COLORADO RIVER - APRIL 1 SNOWPACK IN THE UPPER COLORADO RIVER BASIN, ACCORDING TO THE U. S. SOIL CONSERVATION SERVICE, IS ABOUT 115 PERCENT OF NORMAL FOR THE AREA AND RANGES FROM A LOW OF 77 PERCENT ON THE GREEN RIVER IN WYOMING TO A HIGH OF 163 PERCENT ON THE DOLORES RIVER IN COLORADO.

THE U. S. BUREAU OF RECLAMATION, SALT LAKE CITY, UTAH, FORECASTS THAT FLOW IN THE COLORADO RIVER, INFLOW TO LAKE POWELL, DURING APRIL-JULY 1973 WILL BE 9,000,000 ACRE-Feet, ABOUT 109 PERCENT OF THE 50-YEAR AVERAGE.

STORAGE IN LAKE MEAD ON APRIL 1 WAS 19,980,000 ACRE-Feet. THIS IS 125 PERCENT OF AVERAGE FOR THIS DATE. CURRENTLY, STORAGE IS 2,806,000 ACRE-Feet ABOVE WHAT IT WAS LAST YEAR AT THIS TIME. COMBINED STORAGE IN THE FOUR INTERSTATE RESERVOIRS ON THE COLORADO RIVER IS 34,188,000 ACRE-Feet, 125 PERCENT OF THE APRIL AVERAGE.

MAJOR WATER DISTRIBUTION PROJECTS

CENTRAL VALLEY PROJECT - APRIL 1 RUNOFF FORECASTS INDICATE THAT ALL CVP RIVER BASINS SHOULD HAVE ABOVE NORMAL FLOWS THIS YEAR, AND THE U. S. BUREAU OF RECLAMATION REPORTS THAT FOLSOM, MILLERTON, AND CLAIR ENGLE LAKES SHOULD FILL. SHASTA LAKE WILL FILL IF NORMAL SPRING PRECIPITATION OCCURS. ALL CONTRACTUAL WATER AND POWER DELIVERIES WILL BE MET. THE WATER SUPPLY FORECAST FOR MILLERTON LAKE INDICATES A FULL CLASS 1 SUPPLY AND 90 PERCENT OF A FULL CLASS 2 SUPPLY WILL BE AVAILABLE THIS YEAR.

STORAGE IN MAJOR CENTRAL VALLEY PROJECT RESERVOIRS

RESERVOIR	CAPACITY 1,000 AF	10-YEAR AVG. 1963-1972 1,000 AF	STORAGE AS OF APRIL 1		
			1972 1,000 AF	1973 1,000 AF	PERCENT AVERAGE
CLAIR ENGLE LAKE	2,447.7	2,208.9	2,303.0	2,133.0	97
SHASTA LAKE	4,552.1	3,865.5	4,076.2	3,985.5	103
WHISKEYTOWN	241.1	209.0 ^{1/}	229.4	211.8	100
FOLSOM	1,010.3	620.1	723.4	642.4	104
MILLERTON LAKE	520.5	330.7	298.0	479.5	145
SAN LUIS CVP	970.9	920.3 ^{1/}	956.9	973.6	105

^{1/} LESS THAN 10-YEAR AVERAGE.

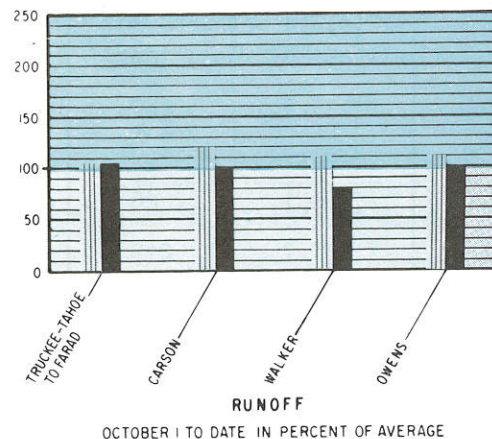
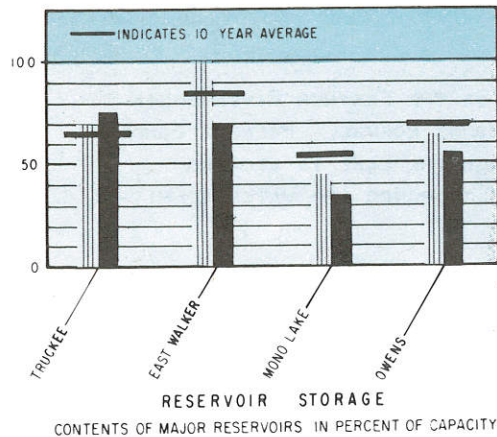
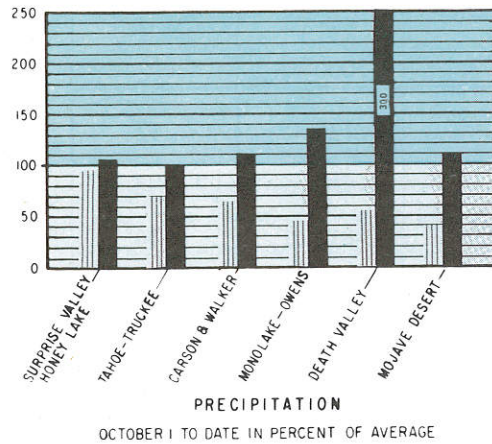
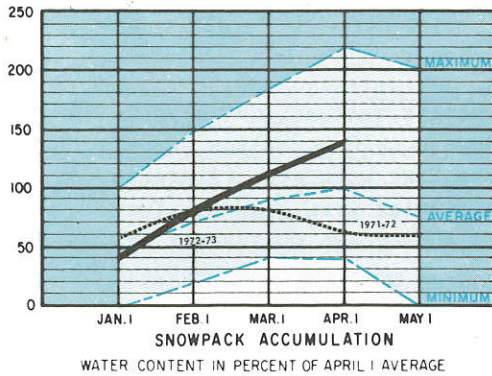
STATE WATER PROJECT - THE APRIL 1 RUNOFF FORECAST FOR THE FEATHER RIVER BASIN SHOWS THAT THE APRIL THROUGH JULY FLOW WILL BE ABOUT 129 PERCENT OF NORMAL. PRESENT CONDITIONS INDICATE THAT LAKE OROVILLE WILL FILL THIS YEAR EVEN THOUGH THE LAKE IS STORING 200,000 ACRE-Feet LESS THAN LAST YEAR AT THIS TIME. ALL SCHEDULED POWER AND WATER COMMITMENTS WILL BE MET.

STORAGE IN STATE WATER PROJECT RESERVOIRS

RESERVOIR	CAPACITY 1,000 AF	10-YEAR AVG. 1963-1972 1,000 AF	STORAGE AS OF APRIL 1		
			1972 1,000 AF	1973 1,000 AF	PERCENT AVERAGE
OROVILLE	3,538.0	2,762.5 ^{1/}	3,206.8	2,982.4	107
SAN LUIS SWP	1,067.0	959.0 ^{1/}	938.6	1,050.0	109
LAKE DEL VALLE	77.1	33.3 ^{1/}	30.1	39.9	120
SILVERWOOD LAKE	78.0	21.8 ^{1/}	21.9	32.9	150
PYRAMID LAKE	179.0	0.5 ^{1/}	0.5	0.1	26
CASTAIC LAKE	350.0	32.6 ^{1/}	32.6	71.7	219
PERRIS RESERVOIR	120.0	NR	NR	NR	--

^{1/} LESS THAN 10-YEAR AVERAGE.

LAHONTAN AREA



SNOWPACK - MEASUREMENTS OF SNOWPACK WERE OBTAINED AT 65 SNOW COURSES AND 31 AERIAL SNOW DEPTH MARKERS ON OR ABOUT APRIL 1. ALSO, READINGS OF WATER CONTENT WERE OBTAINED FROM 11 SNOW SENSORS. THESE MEASUREMENTS INDICATED THAT SNOWPACK WATER CONTENT WAS 140 PERCENT OF AVERAGE, AS COMPARED TO 55 PERCENT ONE YEAR AGO. IT RANGED FROM A HIGH OF 145 PERCENT OF AVERAGE IN OWENS RIVER BASIN TO A LOW OF 115 PERCENT OF AVERAGE IN THE TRUCKEE RIVER BASIN. SIXTY-THREE SNOW COURSES IN THIS AREA HAVE WATER CONTENTS THAT EXCEED THE APRIL 1 AVERAGE. DENSITIES RANGE FROM 30-40 PERCENT.

PRECIPITATION - OCTOBER THROUGH MARCH PRECIPITATION AVERAGED 130 PERCENT OF NORMAL FOR THE LAHONTAN AREA. ALL SUB-DRAINAGES ARE NORMAL OR ABOVE. AMOUNTS ARE ALL GREATER THAN VALUES FOR THE CORRESPONDING PERIOD LAST YEAR, RANGING FROM ONE-THIRD MORE IN THE TAHOE-TRUCKEE DRAINAGES TO THREE TIMES MORE IN THE MONO LAKE-OWENS DRAINAGES. DEATH VALLEY REPORTED THEIR WETTEST OCTOBER-MARCH PERIOD WITH 3.50 INCHES OR 301 PERCENT OF NORMAL. SEASONAL CATCHES VARIED FROM 24.85 INCHES (92 PERCENT) AT TAHOE CITY TO 6.52 INCHES (141 PERCENT) AT BISHOP. MARCH PRECIPITATION AVERAGED 140 PERCENT OF NORMAL. EXTREMES VARIED WIDELY FROM 202 PERCENT (1.17 INCHES) AT COTTONWOOD GATES, IN THE OWENS RIVER DRAINAGE, TO 44 PERCENT (1.78 INCHES) AT TRUCKEE.

RESERVOIR STORAGE - STORAGE IN SEVEN MAJOR CALIFORNIA RESERVOIRS IN THE MONO LAKE-OWENS VALLEY AREA IS 172,300 ACRE-FEET ON APRIL 1. THIS IS ABOUT 75 PERCENT OF AVERAGE FOR THIS DATE. STORAGE IN LAKE TAHOE, BOCA, AND BRIDGEPORT RESERVOIRS, WHICH STORE WATER FOR USE BOTH IN CALIFORNIA AND NEVADA, WAS 601,000 ACRE-FEET FOR THIS DATE. LAKE TAHOE STORAGE IS 106 PERCENT OF AVERAGE FOR APRIL 1. THE WATER SURFACE ELEVATION IS 6227.44 FEET.

RUNOFF - MARCH RUNOFF IN THE LAHONTAN AREA TOTALED 57,000 ACRE-FEET OR 75 PERCENT OF AVERAGE FLOWS FOR THE MONTH. LACK OF NORMAL PRECIPITATION ACCOUNTS FOR THE POOR STREAMFLOW WHICH VARIED FROM 64 PERCENT OF AVERAGE ON THE TRUCKEE RIVER TO 88 PERCENT FOR THE EAST WALKER RIVER. FOR THE SIX-MONTH-OLD WATER YEAR, RUNOFF HAS BEEN AVERAGE OVER THE AREA, WITH MOST STREAMS PRODUCING 90 TO 105 PERCENT OF AVERAGE FLOWS. ONLY THE WEST WALKER HAS BEEN SLUGGISH, PRODUCING ONLY 79 PERCENT OF AVERAGE FLOWS FOR THE PERIOD.

FORECASTS - CONDITIONS OF APRIL 1 INDICATE THAT RUNOFF FROM THE LAHONTAN AREA DURING THE 1972-73 WATER YEAR WILL BE ABOUT 105 PERCENT OF AVERAGE. THE DEPARTMENT OF WATER AND POWER OF THE CITY OF LOS ANGELES FORECASTS THE APRIL-JULY RUNOFF FOR THE OWENS RIVER BELOW LONG VALLEY RESERVOIR TO BE ABOUT 76,500 ACRE-FEET, 123 PERCENT OF AVERAGE.

LAHONTAN AREA

FORECASTS AS OF APRIL 1, 1973			
STREAM AND STATION	APRIL-JULY RUNOFF		
	AVERAGE IN ACRE-FEET	IN ACRE-FEET	IN PERCENT OF AVERAGE
Bidwell Creek near Ft. Bidwell	11,180	12,500	112
Mill Creek above diversions	4,870	6,000	123
Deep Creek above diversions	3,540	5,000	141
Eagle Creek at Eagleville	4,770	6,000	126
Truckee River, Lake Tahoe to Farad accretion	264,000	280,000	106
Lake Tahoe Rise (assuming gates closed)	1.42 FT.	1.50 FT.	106
East Carson River near Gardnerville	181,000	215,000	119
West Carson River at Woodfords	51,000	60,000	118
East Walker River near Bridgeport	60,000	65,000	108
West Walker River near Coleville	143,000	170,000	119

SNOW LINES



SNOW SURVEY TRAINING - IS AVAILABLE UPON REQUEST FOR COOPERATORS' FIELD FORCES THAT CANNOT AFFORD THE MORE COMPREHENSIVE U. S. SOIL CONSERVATION'S WEEKLONG SESSIONS OUT OF STATE. THE CALIFORNIA SNOW SURVEYS OFFICE HAS DEVELOPED A ONE-DAY CRAM COURSE THAT COVERS THE ESSENTIALS OF SNOW SAMPLING, WINTER SAFETY AND TRAVEL, SURVIVAL, AND A GENERAL ORIENTATION OF THE SNOW SURVEY AND WATER SUPPLY FORECASTING PROGRAM. WE BRING THE COURSE TO YOU UPON YOUR REQUEST AND ARRANGEMENT OF FACILITIES. ABOUT 35 U. S. FOREST SERVICE AND PACIFIC GAS AND ELECTRIC COMPANY PERSONNEL HAVE RECEIVED THIS TRAINING IN THE TWO SESSIONS HELD SO FAR THIS WINTER. ALTHOUGH OUR PRIMARY CONCERN IS STANDARDIZATION OF SAMPLING AND NOTE KEEPING TECHNIQUES, THE WELFARE AND SAFETY ASPECTS OF SNOW SURVEYING HAVE ALSO BEEN WELL RECEIVED BY TRAINEES. IF YOU WISH TO ENHANCE THE CAPABILITIES OF YOUR SNOW SURVEY TEAM, LET US ARRANGE A SESSION FOR YOU.



TRY THIS LONG-RANGE WEATHER FORECAST - THE FILES OF NORMAN RAAB YIELDED THIS TIDBIT, DATED APRIL 1940.

"RAINFALL CYCLES

PRIMARY CYCLE 1,701 YEARS
SECONDARY CYCLE 567 YEARS
TERIARY CYCLE 189 YEARS

IN THE YEAR 1966, THE PRIMARY CYCLE WITH TWO SUBCYCLES WILL COINCIDE FOR THE WORST DROUGHT IN HISTORY." WELL -- CALIFORNIA DID EXPERIENCE A DRY YEAR IN 1966, ESPECIALLY IN THE LAHONTAN AREA WHICH EXPERIENCED ONE OF THE DRIEST YEARS OF RECORD. So -- WE'LL HAVE TO KEEP AN EYE ON THINGS IN (LET'S SEE -- $1701 - 7 = 1,694$ YEARS FROM NOW!)

COVER

EMERALD PEAK, ELEVATION 12,543 FEET, TOWERS ABOVE THE EMERALD LAKE SNOW COURSE IN THE SOUTH FORK OF THE SAN JOAQUIN RIVER BASIN. THIS COURSE, ESTABLISHED IN 1944, IS MEASURED BY THE SOUTHERN CALIFORNIA EDISON COMPANY.